

Table 1. ANNUAL LOAD (TON) AND YIELD (LB/ACRE)
FROM 10/1/13 TO 9/30/14

Outfall	SAN ANTONIO		SOUTH DIVERSION CHANNEL		SAN JOSE DRAIN		NORTH DIVERSION CHANNEL		TIJERAS ARROYO	
Basin Size (acre)	19,520		7,040		1,248		57,408		86,400	
	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)
BOD	1.1E+00	1.1E-01	1.4E+01	3.9E+00	1.1E+01	1.8E+01	1.1E+02	3.7E+00	-- ^b	-- ^b
COD	6.7E+00	6.8E-01	1.1E+02	3.0E+01	8.5E+01	1.4E+02	1.1E+03	4.0E+01	3.9E+02	9.0E+00
TSS	8.0E+00	8.2E-01	4.5E+02	1.3E+02	1.6E+02	2.5E+02	3.8E+03	1.3E+02	-- ^b	-- ^b
TDS	9.6E+00	9.9E-01	1.2E+02	3.3E+01	7.1E+01	1.1E+02	7.1E+02	2.5E+01	2.4E+03	5.6E+01
Tot N	7.9E-02	8.1E-03	2.1E+00	6.1E-01	2.1E+00	3.4E+00	2.4E+01	8.4E-01	1.1E+01	2.4E-01
TKN	9.5E-02	9.7E-03	1.3E+00	3.6E-01	1.2E+00	2.0E+00	1.7E+01	6.0E-01	1.9E+00	4.5E-02
Tot P	2.3E-02	2.3E-03	4.8E-01	1.4E-01	3.7E-01	5.9E-01	5.6E+00	2.0E-01	8.1E+00	1.9E-01
Diss P	1.3E-02	1.4E-03	1.2E-01	3.4E-02	1.3E-01	2.1E-01	1.2E+00	4.2E-02	-- ^b	-- ^b
Cd	0.0E+00	0.0E+00	1.5E-03	1.9E-04	7.1E-04	1.4E-04	1.3E-02	4.4E-04	-- ^b	-- ^b
Cd diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cu	6.9E-04	7.1E-05	2.0E-02	5.6E-03	1.3E-02	2.1E-02	2.6E-01	9.2E-03	-- ^b	-- ^b
Cu diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.8E-03	4.6E-03	4.4E-02	1.5E-03	-- ^b	-- ^b
Pb	4.6E-04	4.8E-05	3.9E-02	1.1E-02	2.7E-02	4.4E-02	7.3E-01	2.5E-02	5.9E-01	1.4E-02
Pb diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.4E-03	2.3E-03	0.0E+00	0.0E+00	-- ^b	-- ^b
Zn	3.7E-03	3.8E-04	1.1E-01	3.1E-02	1.1E-01	1.7E-01	1.6E+00	5.5E-02	-- ^b	-- ^b
Zn diss	1.0E-03	1.1E-04	7.1E-03	2.0E-03	7.6E-03	1.2E-02	8.9E-02	3.1E-03	-- ^b	-- ^b
Hg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cr III	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
Cr VI	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
As	2.2E-04	2.3E-05	4.7E-03	1.3E-03	2.3E-03	3.7E-03	2.9E-02	1.0E-03	-- ^b	-- ^b
TI	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cl	5.9E-01	6.0E-02	6.1E+00	1.7E+00	5.0E+00	8.0E+00	3.7E+01	1.3E+00	1.2E+01	2.8E-01
NO3	2.4E-02	2.5E-03	3.6E-01	1.0E-01	2.1E-01	3.4E-01	2.6E+00	9.0E-02	-- ^b	-- ^b
SO4	6.7E-01	6.9E-02	1.0E+01	2.8E+00	6.5E+00	1.0E+01	6.9E+01	2.4E+00	1.2E+01	2.8E-01
Phenols	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	4.4E-02	1.5E-03	-- ^b	-- ^b
Hardness CaCO3	4.0E+00	4.1E-01	6.9E+01	2.0E+01	3.7E+01	5.9E+01	3.6E+02	1.3E+01	1.1E+02	2.6E+00

NOTES:

Basin areas were obtained from the USGS Stormwater Sampling Program Fact Sheet 005-03, Jan. 2003, and permit application data (1999)

Loads were calculated using daily discharge mean values and median values of historical sampling data.

*Historical median values were calculated from data obtained from 1992 through 2008 and preliminarily compiled by the USGS
 (no QA/QC of data, sample blanks and duplicates included in the data).

Daily mean discharge data for outfalls were obtained from USGS gaging stations.

0.00E+00 Constituents with reported analyses below the detection limit were assigned an event mean concentration of "0". The corresponding loads are unable to be calculated. Detection limits for these constituents is available upon request.

^aNot Analyzed - Laboratories cannot distinguish between Cr III and Cr VI.

^bHistoric data unavailable for load calculations. Note that the Tijeras Arroyo was not sampled until added as a replacement outfall for the Barelas Pump Station in May, 2011. Analytical data from sample collection at the Tijeras Arroyo has been limited by both it's recent addition as an outfall location as well as drought conditions in the area.

**Table 3. DRY SEASON LOAD (TON) AND YIELD (LB/ACRE)
FROM 10/1/13 TO 5/31/14**

Outfall	SAN ANTONIO		SOUTH DIVERSION CHANNEL		SAN JOSE DRAIN		NORTH DIVERSION CHANNEL		TIJERAS ARROYO	
Basin Size (acre)	19,520		7,040		1,248		57,408		86,400	
	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)
BOD	3.4E-01	3.5E-02	1.7E+00	4.7E-01	6.9E-01	1.1E+00	4.3E+01	1.5E+00	-- ^b	-- ^b
COD	2.1E+00	2.2E-01	1.3E+01	3.7E+00	5.2E+00	8.4E+00	4.5E+02	1.6E+01	5.6E+01	1.3E+00
TSS	2.6E+00	2.6E-01	5.5E+01	1.6E+01	9.7E+00	1.5E+01	1.5E+03	5.3E+01	-- ^b	-- ^b
TDS	3.1E+00	3.1E-01	1.4E+01	4.1E+00	4.4E+00	7.0E+00	2.8E+02	9.8E+00	3.5E+02	8.1E+00
Tot N	2.5E-02	2.6E-03	2.6E-01	7.5E-02	1.3E-01	2.1E-01	9.6E+00	3.3E-01	1.5E+00	3.5E-02
TKN	3.0E-02	3.1E-03	1.6E-01	4.5E-02	7.5E-02	1.2E-01	6.8E+00	2.4E-01	2.8E-01	6.5E-03
Tot P	7.3E-03	7.5E-04	5.9E-02	1.7E-02	2.3E-02	3.6E-02	2.2E+00	7.8E-02	1.2E+00	2.7E-02
Diss P	4.2E-03	4.3E-04	1.5E-02	4.2E-03	8.0E-03	1.3E-02	4.8E-01	1.7E-02	-- ^b	-- ^b
Cd	0.0E+00	0.0E+00	1.9E-04	5.3E-05	4.4E-05	7.0E-05	5.0E-03	1.7E-04	-- ^b	-- ^b
Cd diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cu	2.2E-04	2.3E-05	2.4E-03	6.8E-04	8.2E-04	1.3E-03	1.1E-01	3.7E-03	-- ^b	-- ^b
Cu diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-04	2.8E-04	1.8E-02	6.1E-04	-- ^b	-- ^b
Pb	1.5E-04	1.5E-05	4.8E-03	1.4E-03	1.7E-03	2.7E-03	2.9E-01	1.0E-02	8.5E-02	2.0E-03
Pb diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	8.8E-05	1.4E-04	0.0E+00	0.0E+00	-- ^b	-- ^b
Zn	1.2E-03	1.2E-04	1.3E-02	3.8E-03	6.5E-03	1.0E-02	6.2E-01	2.2E-02	-- ^b	-- ^b
Zn diss	3.3E-04	3.4E-05	8.7E-04	2.5E-04	4.7E-04	7.5E-04	3.5E-02	1.2E-03	-- ^b	-- ^b
Hg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cr III	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
Cr VI	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
As	7.1E-05	7.3E-06	5.8E-04	1.6E-04	1.4E-04	2.3E-04	1.2E-02	4.0E-04	-- ^b	-- ^b
TI	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cl	1.9E-01	1.9E-02	7.5E-01	2.1E-01	3.1E-01	4.9E-01	1.5E+01	5.1E-01	1.8E+00	4.1E-02
NO3	7.7E-03	7.9E-04	4.4E-02	1.3E-02	1.3E-02	2.1E-02	1.0E+00	3.6E-02	-- ^b	-- ^b
SO4	2.1E-01	2.2E-02	1.2E+00	3.5E-01	4.0E-01	6.5E-01	2.8E+01	9.6E-01	1.8E+00	4.1E-02
Phenols	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.8E-02	6.1E-04	-- ^b	-- ^b
Hardness CaCO3	1.3E+00	1.3E-01	8.4E+00	2.4E+00	2.3E+00	3.6E+00	1.4E+02	5.0E+00	1.6E+01	3.8E-01

NOTES:

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^bHistoric data unavailable for load calculations. Note that the Tijeras Arroyo was not sampled until added as a replacement outfall for the Barelas Pump Station in May, 2011. Analytical data from sample collection at the Tijeras Arroyo has been limited by both it's recent addition as an outfall location as well as drought conditions in the area.

**Table 2. WET SEASON LOAD (TON) AND YIELD (LB/ACRE)
FROM 6/1/14 TO 9/30/14**

Outfall	SAN ANTONIO		SOUTH DIVERSION CHANNEL		SAN JOSE DRAIN		NORTH DIVERSION CHANNEL		TIJERAS ARROYO	
Basin Size (acre)	19,520		7,040		1,248		57,408		86,400	
	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)	LOAD (ton)	YIELD (lb/ac)
BOD	7.4E-01	7.5E-02	1.2E+01	3.4E+00	1.0E+01	1.7E+01	6.5E+01	2.3E+00	-- ^b	-- ^b
COD	4.5E+00	4.7E-01	9.3E+01	2.6E+01	8.0E+01	1.3E+02	6.9E+02	2.4E+01	3.3E+02	7.7E+00
TSS	5.5E+00	5.6E-01	3.9E+02	1.1E+02	1.5E+02	2.4E+02	2.3E+03	8.1E+01	-- ^b	-- ^b
TDS	6.6E+00	6.7E-01	1.0E+02	2.9E+01	6.7E+01	1.1E+02	4.3E+02	1.5E+01	2.1E+03	4.8E+01
Tot N	5.4E-02	5.5E-03	1.9E+00	5.4E-01	2.0E+00	3.2E+00	1.5E+01	5.1E-01	9.0E+00	2.1E-01
TKN	6.4E-02	6.6E-03	1.1E+00	3.2E-01	1.1E+00	1.8E+00	1.0E+01	3.6E-01	1.7E+00	3.9E-02
Tot P	1.6E-02	1.6E-03	4.2E-01	1.2E-01	3.5E-01	5.6E-01	3.4E+00	1.2E-01	6.9E+00	1.6E-01
Diss P	9.1E-03	9.3E-04	1.1E-01	3.0E-02	1.2E-01	2.0E-01	7.3E-01	2.5E-02	-- ^b	-- ^b
Cd	0.0E+00	0.0E+00	1.3E-03	1.4E-04	6.7E-04	6.8E-05	7.6E-03	2.6E-04	-- ^b	-- ^b
Cd diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cu	4.7E-04	4.8E-05	1.7E-02	4.9E-03	1.3E-02	2.0E-02	1.6E-01	5.6E-03	-- ^b	-- ^b
Cu diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-03	4.3E-03	2.7E-02	9.3E-04	-- ^b	-- ^b
Pb	3.2E-04	3.2E-05	3.4E-02	9.8E-03	2.6E-02	4.1E-02	4.4E-01	1.5E-02	5.1E-01	1.2E-02
Pb diss	0.0E+00	0.0E+00	0.0E+00	0.0E+00	1.3E-03	2.1E-03	0.0E+00	0.0E+00	-- ^b	-- ^b
Zn	2.5E-03	2.6E-04	9.5E-02	2.7E-02	9.9E-02	1.6E-01	9.5E-01	3.3E-02	-- ^b	-- ^b
Zn diss	7.1E-04	7.3E-05	6.2E-03	1.8E-03	7.1E-03	1.1E-02	5.4E-02	1.9E-03	-- ^b	-- ^b
Hg	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cr III	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
Cr VI	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a	-- ^a
As	1.5E-04	1.6E-05	4.1E-03	1.2E-03	2.1E-03	3.4E-03	1.7E-02	6.1E-04	-- ^b	-- ^b
TI	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	-- ^b	-- ^b
Cl	4.0E-01	4.1E-02	5.4E+00	1.5E+00	4.7E+00	7.5E+00	2.2E+01	7.8E-01	1.0E+01	2.4E-01
NO3	1.7E-02	1.7E-03	3.2E-01	9.0E-02	2.0E-01	3.1E-01	1.6E+00	5.4E-02	-- ^b	-- ^b
SO4	4.6E-01	4.7E-02	8.7E+00	2.5E+00	6.1E+00	9.8E+00	4.2E+01	1.5E+00	1.0E+01	2.4E-01
Phenols	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	0.0E+00	2.7E-02	9.3E-04	-- ^b	-- ^b
Hardness CaCO3	2.7E+00	2.8E-01	6.0E+01	1.7E+01	3.4E+01	5.5E+01	2.2E+02	7.6E+00	9.7E+01	2.2E+00

NOTES:

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(no QA/QC of data, sample blanks and duplicates included in the data).

Daily mean discharge data for outfalls were obtained from USGS gaging stations.

0.00E+00 Constituents with reported analyses below the detection limit were assigned an event mean concentration of "0". The corresponding loads are unable to be calculated. Detection limits for these constituents is available upon request.

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^bHistoric data unavailable for load calculations. Note that the Tijeras Arroyo was not sampled until added as a replacement outfall for the Barelas Pump Station in May, 2011. Analytical data from sample collection at the Tijeras Arroyo has been limited by both it's recent addition as an outfall location as well as drought conditions in the area.

Table 4. EVENT MEAN CONCENTRATIONS AND HISTORICAL MEDIAN DATA
From 10/1/13 to 9/30/14

SAN ANTONIO		SOUTH DIVERSION CHANNEL		SAN JOSE DRAIN		NORTH DIVERSION CHANNEL		TIJERAS ARROYO	
	Basin Size: 19,520 acres		Basin Size: 7,040 acres		Basin Size: 1,248 acres		Basin Size: 57,408 acres		Basin Size: 86,400 acres
Discharge Date	8/22/2014	Historical							
Daily Mean Flow (cfs)	0.31	Median*	NS	Historical Median*	7/17/2014	Historical Median*	NS	Historical Median*	7/3/2013
DO (mg/L)	6.45	-- ^b	NS	-- ^b	4.45	-- ^b	NS	-- ^b	4.63
BOD (mg/L)	19.0	12.0	NS	18.0	4.4	29.4	NS	17.0	8.2
COD (mg/L)	85.0	74.0	NS	140.0	38.0	223.0	NS	181.0	41.0
TSS (mg/L)	16.0	89.0	NS	592.0	160.0	412.0	NS	610.0	20,000.0
TDS (mg/L)	180.0	107.0	NS	155.0	186.0	187.5	NS	112.0	520.0
Tot N (mg/L)	1.1	0.88**	NS	2.9	2.0	5.5	NS	3.8	29.0
TKN (mg/L)	1.1	1.1	NS	1.7	0.6	3.2	NS	2.7	16.0
Tot P (mg/L)	0.2	0.3	NS	0.6	1.4	1.0	NS	0.9	6.5
Diss P (mg/L)	0.2	0.1	NS	0.2	0.3	0.3	NS	0.2	ND
Cd (ug/L)	ND	ND	NS	2.0	ND	1.9	NS	2.0	6.0
Cd diss (ug/L)	ND	ND	NS	ND	ND	ND	NS	ND	ND
Cu (ug/L)	7.7	7.7	NS	26.0	14.0	35.1	NS	42.0	130.0
Cu diss (ug/L)	5.9	ND	NS	ND	4.0	7.5	NS	7.0	2.6
Pb (ug/L)	1.5	5.2	NS	52.0	24.0	71.9	NS	115.0	160.0
Pb diss (ug/L)	ND	ND	NS	ND	1.2	3.7	NS	ND	ND
Zn (ug/L)	170.0	40.8	NS	143.8	110.0	278.0	NS	249.0	460.0
Zn diss (ug/L)	29.0	11.6	NS	9.4	ND	19.9	NS	14.1	14.0
Hg (ug/L)	ND	ND	NS	ND	ND	ND	NS	ND	ND
Cr III (ug/L)	ND	-- ^b	NS	-- ^b	7.0	-- ^b	NS	-- ^b	72.0
Cr VI (ug/L)	ND	-- ^b	NS	-- ^b	ND	-- ^b	NS	-- ^b	ND
As (ug/L)	1.9	2.5	NS	6.2	2.9	6.0	NS	4.6	17.0
Tl (ug/L)	ND	ND	NS	ND	ND	ND	NS	ND	ND
Cl (mg/L)	7.5	6.6	NS	8.1	9.0	13.1	NS	5.9	4.2
NO3 (mg/L)	ND	0.27**	NS	0.48**	0.6	0.55**	NS	0.4	13.0
SO4 (mg/L)	7.5	7.4	NS	13.2	18.0	17.2	NS	11.0	21.0
Phenols (ug/L)	ND	ND	NS	ND	ND	ND	NS	7.0	ND
Hardness CaCO3 (mg/L)	55.0	44.8	NS	91.0	56.0	96.0	NS	57.0	110.0
Oil and Grease (mg/L)	ND	ND	NS	ND	ND	ND	NS	2.0	ND
Temperature (°C)	21.4	22.3	NS	19.5	25.9	24.0	NS	21.5	25.5
Conductivity (S.U.)	148.0	101.0	NS	201.5	190.0	212.0	NS	181.0	280.0
pH (S.U.)	7.0	8.3	NS	8.1	7.6	7.7	NS	7.9	7.7
Ecoli (MPN/100cfu)	8664.0	1,600	NS	14,225	8,664	7,600	NS	4,610	4,106

NOTES:

NS = not sampled (qualifying event criteria not met)

ND = non-detect

*Historical median values calculated from data obtained from 1992 through 2008 and preliminarily compiled by the USGS (no QA/QC of data, sample blanks included in data).

Reported concentrations are from composited samples are therefore assumed to represent the event mean concentration.

Basin areas are taken from USGS Stormwater Sampling Program Fact Sheet 005-03, and 1999 permit application information.

**Dry season data unavailable - historic median based on wet season only

^aNot Analyzed - Laboratories cannot distinguish between Cr III and Cr VI. Total Cr concentrations available upon request

^bHistoric data unavailable

SUMMARY

Annual, Wet, and Dry Season loads reported in Tables 1 through 3 are the same order of magnitude as those reported in 2009 using data from 2007. Event mean concentrations are also typical of values obtained in the past and show no apparent trend. Samples obtained following a prolonged dry period generally exhibit higher than average event mean contractions while those collected after a "first flush" result in lower than average values. Note that the Albuquerque

Metropolitan Area has been subject to extreme drought conditions the past 2 to 3 years in addition to increasingly localized rain events. This has limited the number of discharge events and resulting sample collection efforts. Also note that the loading estimates are based upon daily mean flows recorded at the outfall station. These stations are typically located several hundred feet to a few miles upstream of the discharge point to the Rio Grande. Infiltration likely occurs in the unlined channel downstream of the outfall station and has not been taken into account. Therefore, the results presented in Tables 1 through 3 are a conservative overestimate.